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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/027,791  
Filing Date: December 20, 2001  
Appellant(s): CLARK ET AL.

\_\_\_\_\_  
Dority & Manning  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 10/09/2007 appealing from the Office action mailed 3/02/2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The previous Office Action presented a 35 USC 103(a) rejection with respect to Sherry, not a 35 USC 102(e) rejection.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,716,805

Sherry et al

4-2004

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

**3. Claims 27 - 38, 50 - 51, 53 - 54, 56 - 58, 60 - 71 and 73 - 81 are rejected under 35**

**U.S.C. 103(a) as being unpatentable over Sherry et al. (US 6,716,805).** Sherry is directed to pre-moistened wipes (Title), specifically for use on floors, counters and walls (column 35, lines 55 - 69). As to claims 27 and 35, Sherry teaches a pre-moistened wipe having a composition described in sections B and C (column 35, lines 58 - 60). According to formulation C, the composition comprises an effective amount of a primary detergent or surfactant such as an alkyl polysaccharide (column 24, lines 55 - 69); the Examiner equates this to Applicant's "non-ionic surfactant". Sherry indicates that the wipe can comprise materials and is made from methods described in sections D and D1 (column 35, lines 60 - 65). According to Section D, the wipe can be a nonwoven substrate (column 29, lines 10 - 20). The pre-moistened wipe has an optimum wetness from 1 - 5 grams of solution per gram of wipe (column 36, lines 5 - 15), which is equivalent to 100% - 500% of the dry weight of the wiper. Sherry teaches that the wipe may comprise low levels of effective anti-microbial ingredients such as BARDAC 2280 (column 37, lines 20 - 30), which according to Applicant's Specification is a benzalkonium halide. Sherry teaches that the anti-microbial may be present in the amount of 0.001 - 0.1% (column 37, lines 25 - 35). Sherry teaches that the anti-microbial additives are chosen to be effective against gram-positive and gram-negative bacteria and most preferably provide protection against E. Coli and S. Aureus (column 38, lines 15 - 30). Sherry teaches that residual disinfectancy can be achieved or enhanced using pH, preferably using compositions having a pH greater than 10.5 (column 38,

lines 30 - 45). Sherry teaches using the wipe in locations such as stove tops and countertops (column 37); the Examiner equates this to use in Applicant's "food service applications".

As to claim 28, Sherry teaches the use of 0.001 - 0.1% of BARDAC 2280 (column 37, lines 25 - 35).

As to claim 30, Sherry teaches in formulation C that the primary non-ionic surfactant can be present in the amount of 0.005 - 10% and most preferably 0.025 - 4% (column 24, lines 55 - 69).

As to claim 31, Sherry teaches that formulation C can comprise an effective amount of an organic cleaning solvent such as mono-propylene glycol mono-propyl ether, di-propylene glycol mono-butyl ether, ethylene glycol mono-butyl ether, etc. (column 25, lines 1 - 25); the Examiner equates this to Applicant's "non-aqueous solvent". Sherry teaches that the organic cleaning solvent can be present in the amount of 0.5 - 10% and most preferably between 0.5 - 5% by weight of the composition (column 25, lines 1 - 25).

As to claims 29 and 36, Sherry teaches that the wiper can comprise a preservative (column 35, lines 10 - 20), a non-aqueous solvent (column 25, lines 1 - 25) and an effective amount of adjuvant (column 25, lines 45 - 55) such as a detergent builder like citric and tartaric acids (column 19, lines 60 - 69 and column 20, lines 1 - 10). It should be noted that on page 16 of the Specification it is indicated that citric acid can be considered a sequestrant. The detergent builder or sequestrant can be present in the amount of 0.01 - 0.3% (column 20, lines 1 - 10).

As to claims 53 - 54, Sherry teaches that the non-woven substrate can comprise various types of fibers including various cellulosic fibers such as wood, wood pulp, cotton, jute, hemp, etc (column 26, lines 1 - 25).

As to claims 56 and 69, Sherry teaches that the wipe may comprise low levels of effective anti-microbial ingredients such as BARDAC 2280 (column 37, lines 20 - 30), which according to Applicant's Specification meets the formula of the claim.

As to claims 57 and 70, Sherry teaches that the composition comprises preferably 0.5 - 5% by weight of non-aqueous solvent (column 25, lines 1 - 25).

As to claims 58 and 71, Sherry teaches that the composition comprises preservatives in the amount of 0.0001 - 0.01% by weight (column 21, lines 1 - 30).

As to claims 60 and 73, Sherry teaches that the composition has a pH of greater than 10.5 (column 38, lines 30 - 45).

As to claims 27, 34 - 35, 38 and 50 - 51, Sherry discloses the claimed invention except for that benzalkonium halide is present in an amount less than 2000 parts per million of the released solution as stated in claims 27 and 35, benzalkonium halide is present in the amount of about 150 to about 400 parts per million of released solution as stated in claims 34 and 38, benzalkonium halide is present in an amount of less than about 400 parts per million of the released solution as stated in claims 50 - 51. However, in the absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the amount of benzalkonium halide present in the released solution to an amount less than 2000 parts per million of the released solution as stated in claims 27 and 35, benzalkonium halide in the amount of about 150 to about 400 parts per million of released solution as stated in claims 34 and 38 and benzalkonium halide in an amount of less than about 400 parts per million of the released solution as stated in claims 50 - 51, since it has been held

that where general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 220 F.2d 454 USPQ 233 (CCPA 1955). In the present invention, one would have been motivated to optimize the concentration of benzalkonium halide in the released solution in order to create a wipe with optimal biocidal effectiveness.

As to claims 27, 32 - 33, 35, 37, 59 - 68 and 72 - 81, although Sherry does not explicitly teach the claimed log reduction for E. Coli, S. Aureus or both is at least about 3 and the Kill Efficiency Ratio for E. Coli, S. Aureus, or both is at least about 40 as required by claim 27, the log reduction for E. Coli is at least about 4 as required by claim 32, the log reduction for S. Aureus is at least about 4 as required by claim 33, the wiper has a Kill Efficiency Ratio for E. Coli, S. Aureus, or both of a least 200 as required by claim 27, the pH of the sanitizing formulation is greater than about 8 as required by claims 59 and 72, the pH of the sanitizing formulation is between about 9 and about 12 as required by claims 60 and 73, the log reduction for E. Coli is at least about 3 as required by claims 61 and 74, the log reduction for E. Coli is at least about 4 as required by claim 75, the log reduction for E. Coli is at least about 5 as required by claims 62 and 76, the log reduction for S. Aureus is at least about 3 as required by claims 63 and 77, the log reduction for S. Aureus is at least about 4 as required by claim 78, the log reduction for S. Aureus is at least about 5 as required by claims 64 and 79, the Kill Efficiency Ratio for E. Coli, S. Aureus or both is a least about 100 as required by claims 35, 65 and 80, the Kill Efficiency Ratio for E. Coli, S. Aureus or both is least about 200 as required by claim 37 and 66, the Kill Efficiency Ratio for E. Coli, S. Aureus or both is at least about 400 as required by claims 67 and 81 and the wiper exhibits an Antimicrobial Reduction of less than about 95% as

required by claim 68, it is reasonable to presume that the properties are inherent to Sherry. Support for said presumption is found in the use of like materials (i.e. a nonwoven substrate comprising a composition comprising at least one non-ionic surfactant and Applicant's specific benzalkonium halide in Applicant's claimed ranges with desired wipe saturation level) which would result in the claimed properties. The burden is upon the Applicant to prove otherwise. In re Fitzgerald 205 USPQ 594. In addition, the presently claimed properties above would obviously have been present once the Sherry product is provided. Note In re Best, 195 USPQ at 433, footnote 4 (CCPA 1977).

**(10) Response to Argument**

**I. A. Appellants argue Sherry fails to teach or suggest several of the aspects of the limitations of independent claims 27 and 35.** Appellant's arguments that independent claims 27 and 35 are not anticipated by Sherry, et al. are moot in view of the 35 USC 103(a) rejection made. Appellant's state that "Sherry fails to teach or suggest the Kill Efficiency Ratio and that the benzalkonium halide is present within a released solution in an amount less than 2000 ppm, while attaining a high log reduction of E. coli, S.Aureus or both". Therefore Appellants submit that claims 27 and 35 are not anticipated by Sherry. Examiner has not made a 35 USC 102(e) rejection wherein the prior art of Sherry anticipates the Appellant's claims. Examiner made a typographical error in the Final Office Action of 3/2/2007 and used the language for a 35 USC 102/103 rejection. The Final Office Action of 3/2/2007 maintained the Non-Final Office Action of 5/18/2006 and the intent was to maintain a 35 USC 103(a) rejection with respect to Sherry only.



Wherein Sherry teaches the structure and composition of the Appellant's invention, Sherry provides a teaching that it would have been obvious to produce a wipe with the claimed add on composition and antibacterial kill properties. Sherry teaches the importance of judicious selection of antimicrobial actives combined with lack or rinsing step provides residual disinfectancy (col. 37, lines 33-35). Sherry teaches higher and lower levels of many antimicrobial compounds (col. 36, 45-68 and col. 37, lines 1-63) and therefore provides the teaching that it would have been obvious to one of ordinary skill in the art to optimize the amount and type of antimicrobial to achieve the desired result. Sherry further teaches a wipe which provides a residual disinfectant that is capable of being 99.9% cidal against bacteria. Sherry teaches a residual disinfectant that is capable of 99.9% antibacterial efficiency but does not teach an antibacterial efficiency measured in terms of Kill Efficiency Ratio and a high log reduction for *E. coli*, *S. Aureus*. Sherry provides a teaching that wipes produced with an equivalent antibacterial composition and at an equivalent add on level can clean and disinfect a surface and leave a residual disinfectant that kills bacteria.

**I. B. Appellants argue that Sherry teaches away from the wipes of claims 27 and 35.** Appellants state that Sherry teaches pre-moistened wipes having antimicrobial actives provide residual antimicrobial actives delivered by the wet wipe onto the hard surface at least about 99.9% cidal against bacteria and other microorganisms for a period of from about 8 to about 72 hours and Appellant states these "residual antimicrobial actives" is the type of result that the Appellant is trying to avoid by having the released solution in an amount less than about 2000 ppm of the released solution. Sherry teaches a wipe, with the claimed amount of benzalkonium halide on the wipe and teaches the wipe is used to clean countertops and surfaces

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and provides residual antimicrobial actives that are capable of being 99.9% cidal against bacteria including *E. coli* and *S. Aureus*. Sherry teaches a wipe that cleans surfaces and leaves a residual amount of cleaning solution on the surface which Sherry calls a "No-rinse treatment" (col. 2, lines 15-20). Sherry teaches for added convenience, a pre-moistened wipe is ideal for light cleaning and disinfecting and that since the amount of solution released from the wipe is more limited than that delivered through conventional cleaning, effective anti-microbial systems need to be used (col. 36, lines 45-52). Sherry teaches one of the anti-microbial systems is that comprised of benzalkonium halides such as BARDAC® 2280 at a concentration in the range of 0.001-0.1%. Sherry teaches the importance of delivering a residual disinfectant and that the residual disinfectant is meant to provide residual antimicrobial activity. Sherry differs from the current application and does not teach the amount of released solution. However Sherry teaches a wipe, with an equivalent amount of cleaning/disinfecting composition and an equivalent type and amount of disinfectant in the cleaning/disinfecting composition. Therefore Sherry provides a finding that one of ordinary skill in the art would have recognized the results would be predictable. In the absence of evidence or comparative data that shows that the wipe of Sherry does not provide the same result as the wipe of the Appellant, Sherry provides the teaching that the Appellants invention would have been obvious to one of ordinary skill in the art at the time the invention was made.

Appellant states that the wipe of the current application teaches that solutions released by wipers in the food service environment are often required to contain a relatively small amount of the antimicrobial agent and cites Title 21, Section 178.1010 of the US CFR which sets forth various requirements for use of sanitizing solutions used on food-processing equipment, utensils

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and other food-contact articles. This argument is not commensurate with the scope of the claims.

The claims as recited do not distinguish the Appellants wipe from the wipe of Sherry and therefore one of ordinary skill in the art would not be able to produce a wipe that meets the specific requirements of the US CFR.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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